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Nojima et al.

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## [54] AMMONIA DECOMPOSITION CATALYSTS

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[58] Field of Search ..... 423/328.2, 237,  
423/351, 658.2; 502/64, 66

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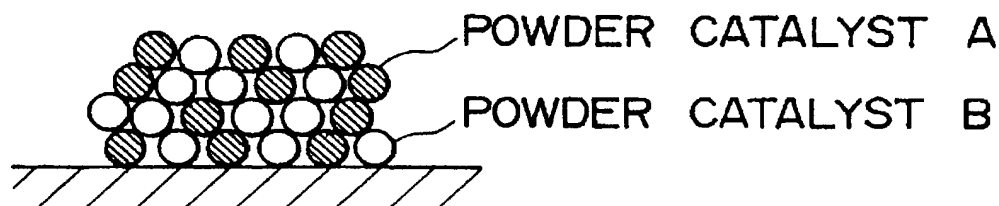
## [57] ABSTRACT

An ammonia decomposition catalyst wherein a first catalyst having a crystalline silicate which is represented by the formula in terms of molar ratio of oxides as dehydrated:



wherein R denotes an alkaline metal ion and/or hydrogen ion, M denotes a VIII Group element, rare earth element, titanium, vanadium, chromium, niobium, antimony or gallium, M' denotes magnesium, calcium, strontium or barium,  $a \geq 0$ ,  $20 > b \geq 0$ ,  $a + c = 1$ ,  $3000 > y > 11$  or a specific porous material as a carrier and iridium or a noble metal as an active metal is present together with or covered with a second catalyst having at least one element selected from the group consisting of titanium, vanadium, tungsten and molybdenum, if necessary, as well as a method of using the same.

7 Claims, 1 Drawing Sheet



MONOLITH SUBSTRATE  
(CORDIERITE)